

ABSTRACT

A flexible oro-nasal mask for mounting in a rigid shell attached to the helmet of aircrew at a fixed distance therefrom. The flexible oro-nasal mask incorporates an inspiratory and expiratory valve and the periphery of the mask is adapted to make a seal with the pilot's face. The oro-nasal mask includes an extendable structure which presses the periphery of the mask automatically towards the pilot's face to improve the seal therewith when gas at a pressure above that required for normal breathing is supplied to the mask. The extendable structure is configured so that when gas at a high pressure is supplied to the interior of the mask, the portion in the bottom region of the mask extends more than the portion in the upper region of the mask and the bottom of the mask is moved away from the wearer's face by a greater amount in the chin region than the nose region and the mask pivots upwardly automatically to compensate for the effects of G thereon. One embodiment of an extendable structure comprises an annular inwardly directed re-entrant recess formed in the wall of the mask adjacent the peripheral seal, the depth of said recess in the bottom half of the mask being greater than the depth in the top half thereof.